IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (original) A method of time varying filtering, comprising:

a. filtering a segment of a signal using a filter; and

b. disengaging the filter in a sequence of graduated steps at the end of the segment; and

c. repeating steps a and b until all segments have been filtered.

2. (currently amended) The method of claim 1, where ~~a given~~ the filter is disengaged by changing the coefficients from their regular values for the filter to values reflecting a gain of unity and no phase delay.

3. (canceled)

4. (currently amended) The method of claim ~~3~~ 2, where in each said step the filter has a different set of coefficients.

5. (currently amended) The method of claim 4, where one sample from the ~~input~~ signal is processed during each step.

6. (currently amended) The method of claim 4, where two or more samples from the ~~input~~ signal are processed during each step.

7. (currently amended) A method of time varying filtering, comprising:

a. engaging a filter in a sequence of graduated steps at the beginning of a signal segment;

b. filtering the segment of the signal using the filter; and

c. repeating steps a and b until all segments have been filtered.

8. (currently amended) The method of claim 7, where ~~a given~~ the filter is engaged by changing the coefficients from values reflecting a gain of unity and no phase delay to their regular values.

9. (canceled)

10. (currently amended) The method of claim ~~9~~ 8, where in each said step the filter has a different set of coefficients.

11. (currently amended) The method of claim 10, where one sample from the ~~input~~ signal is processed during each step.

12. (currently amended) The method of claim 10, where two or more samples from the ~~input~~ signal are processed during each step.

13. (currently amended) A method of time varying filtering, comprising:

a. engaging a filter in a sequence of graduated steps at the beginning of a signal segment;

b. filtering the segment of the signal using the filter;

c. disengaging the filter in a sequence of graduated steps at the end of a signal segment; and

d. repeating steps a-c until all segments have been filtered.

14. (currently amended) The method of claim 13, where ~~a given~~ the filter is engaged by changing the coefficients from values reflecting a gain of unity and no phase delay to their regular values.

15. (canceled)

16. (currently amended) The method of claim ~~15~~ 14, where in each said step the filter has a different set of coefficients.

17. (currently amended) The method of claim 16, where one sample from the ~~input~~ signal is processed during each step.

18. (currently amended) The method of claim 16, where two or more samples from the ~~input~~ signal are processed during each step.

19. (original) An article comprising a computer readable medium having instructions stored thereon which when executed causes:

a. filtering a segment of a signal using a filter;

b. disengaging the filter in a sequence of graduated steps at the end of the segment; and

c. repeating steps a and b until all input signal segments have been filtered.

20. (original) An article comprising a computer readable medium having instructions stored thereon which when executed causes:

a. engaging a filter in a sequence of graduated steps at the beginning of a signal segment;

b. filtering the segment using the filter; and

c. repeating steps a and b until all input signal segments have been filtered.

21. (original) An article comprising a computer readable medium having instructions stored thereon which when executed causes:

a. filtering a segment of a signal using a filter;

b. disengaging the filter in a sequence of graduated steps at the end of the segment;

c. engaging a filter in a sequence of graduated steps at the beginning of the next segment of the signal; and

d. repeating steps a-c until all input signal segments have been filtered.

22. (original) A method, comprising:

inaudibly switching one or more filters on and/or off during processing of an input signal by:

migrating their coefficients from an original set of values to a final set of values through a series of intermediate steps.

23. (original) The method of claim 22, where said filters are:

engaged by changing the coefficients to their regular values for the filter from values reflecting a gain of unity and no phase delay, and

disengaged by changing the coefficients from their regular values for the filter to values reflecting a gain of unity and no phase delay.

24. (original) The method of claim 23, where each filter is disengaged or disengaged, as the case may be, in a number of intermediate steps.

25. (original) The method of claim 24, where in each said step the filter has a different set of coefficients.

26. (original) The method of claim 25, where one sample from the input signal is processed during each step.

27. (original) The method of claim 25, where two or more samples from the input signal are processed during each step.

28-29. (canceled)

30. (currently amended) The method of any of claims ~~1-6~~ 1, 2, 4-6, or of claims ~~13-18~~ 13, 14, 16-18, where ~~a filter is disengaged by~~ the disengaging includes:

migrating ~~its~~ the filter's poles to its zeros, or its zeros to its poles.

31. (currently amended) The method of claim 30, ~~where~~ further comprising:

removing the filter after the migration has been completed~~, the filter is removed~~.

32. (currently amended) The method of claim 30, ~~where after the migration has been completed,~~ further comprising:

moving the colocational poles and zeros ~~are then migrated~~ to the origin via a series of intermediate steps after the migrating has been completed.

33. (currently amended) The method of claim 30, ~~where after the migration has been completed:~~ further comprising:

moving the colocational poles and zeros ~~are then migrated~~ to the origin via a series of intermediate steps after the migrating has been completed; and

removing the filter ~~is then removed~~ after the moving.